## REAL-TIME LOCALIZATION, MONITORING, TRIGGERING AND ACQUISITION OF 3D MRI

## **Abstract of Disclosure**

A technique embodied in a method and apparatus is disclosed for acquiring MR images in 2D and 3D using a common pulse sequence switchable in real-time. The technique includes identifying a 3D imaging volume and applying a 3D pulse sequence having the slice encoding and rewinder gradients disabled in one dimension. The technique then allows localizing and monitoring by acquiring 2D MR data. When it is desirable to enter a 3D imaging mode, the slice encoding and rewinder gradients are re-enabled in the common pulse sequence for acquisition of 3D MR data.